**ABSTRACT**

A computer-based switch enables automated testing of the fail-over and load-balancing operations of a cluster of network servers. The computer-based switch includes a control component, a switching component, and a plurality of network adapters each for forming a connection with a network server. The switching component directs network communication data received from clients on an external network to the network servers through the network adapters. The network adapters are selectively disabled and re-enabled by the control component to create connection failure and recovery conditions. The switching component is also programmable to operate on the network communication data passing therethrough to create other test conditions such as communication delay, data loss, data reordering, and data corruption. The switching component also allows communication flows from the individual network servers to the clients to be monitored for determining whether load balancing of the servers is properly performed.